

# University of Dayton Uses Alteryx and Tableau to Drive Enrollment and Student Success

## Introduction

The University of Dayton is a Catholic research university and the largest private university in Ohio, offering more than 80 academic programs in arts and sciences, business administration, education and health sciences, engineering, and law. With 11,000 students and a 14 to 1 student-to-faculty ratio, admission to the University of Dayton has grown more selective in the past few years, with a 57 percent applicant acceptance rate. More than half of the undergraduate enrollment comes from outside the state, and international students make up more than 10 percent of the total enrollment.

“At the University of Dayton, we strive to understand who our students are as well as their needs and wants, starting from the time they become prospective students and throughout their academic careers here,” says Jason Reinoehl, Interim Vice President for Enrollment Management and Marketing at the University of Dayton. “There are so many possible data points to help us develop a deeper understanding and so many opportunities to use that understanding to improve their university experience.”

## Situation

Rising costs and increasing government involvement in higher education are bringing a greater focus on student outcomes. At the same time, data is available from an increasing variety of sources and departments—internal and external, structured and unstructured. University of Dayton is leveraging publicly available census data, high school academic records, college entrance exams, student activity and transcript data, and post-graduation information. Through these and other sources, universities have opportunities to better understand student behavior and use that understanding to develop programs that address retention, student success, and outcomes.

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Jason Reinoehl, Interim Vice President for Enrollment Management and Marketing  
University of Dayton

### Challenge

The University of Dayton needed to quickly process thousands of pieces of student data from different systems across the university, enabling it to recruit, enroll, and retain the students most likely to succeed at the institution

### Solution

Using Alteryx and Tableau, the University of Dayton was able to quickly blend and analyze data to deliver strategic insights about student behaviors and outcomes, optimize the admissions and enrollment process, and improve retention

### Results

- Deeper Insights: Utilized insights and analysis from Alteryx Analytics and Tableau to develop approaches that contributed to a 3% increase in student retention
- Hours vs. Days: Analyzed more than 1,000 data variables across thousands of prospective students in 30 minutes, a process that previously took two days and multiple people
- Intuitive Workflow: Easily added new data sources to existing workflows for ad-hoc analysis of student performance, housing utilization, financial aid requirements, and alumni outreach

The diversity of students and programs continues to increase at the University of Dayton. “We are running parallel systems for dining services, athletics, student activities, housing, and more,” Reinoehl notes. “You can imagine all of the data points that are available and the value of blending data to gain insights to help the university and its students succeed.”

Each year, about 60,000 prospective undergraduate students express interest in attending the university, but only 2,000 seats are available for first-year students. Rather than just fill the seats, the university’s emphasis is to identify and enroll those students most likely to succeed in the close-knit and engaging University of Dayton community. With an annual tuition cost of \$39,090, students and their families expect a gold standard: an excellent education, a personalized experience, and career readiness.

“Processing an increasing amount of data from disparate systems was pushing our human and technical capacities beyond their limits,” Reinoehl says. “Also, we were receiving more and more requests for data analysis from all over the university—enrollment, recruiting, student engagement, housing, and finance—and we needed a faster way to fulfill all of these requests.”

## Solution

With Tableau already in use for data visualization, Reinoehl and his team found Alteryx as a solution to their biggest problems—accessing, collecting, and blending a wide range of internal and external data sources and preparing them for visualization in Tableau.

“I was sold on Alteryx within five minutes of seeing what it could do,” recalls Reinoehl. “We must do a better job in understanding the behaviors of our students, meeting their needs, and aligning the excellent academic offerings at the University of Dayton with the goal of delivering lifelong value. In my opinion, the only way to effectively gain insights and to continuously innovate is to bring together the disparate data we’re collecting. Alteryx makes this possible.”

With the speed and flexibility of Alteryx, the university is quickly processing more than 1,000 data variables across a large pool of prospective and current students. A process that previously required several people over two days can now be completed by one person in 30 minutes using Alteryx. Notes Reinoehl, “Once the module is created, I can run it at any time—and it’s very quick.”

## Results

Using Alteryx and Tableau gives the University of Dayton a competitive edge in identifying the right students for admission and retaining and graduating those students at increasing rates. Selecting the right students—those who can handle the university’s academic rigor and thrive in its environment of community—from thousands of prospects each year is critical to the university’s success.

“We are seeing how insights we’ve drawn from the data are making the student experience even better,” asserts Reinoehl. “We increased retention by three percent last year—which is incredible—and we expect to repeat that high rate this year. We’ve been able to quickly identify and reach out to at-risk students as a result of the data blending and analysis efforts we’ve accomplished through Alteryx.”

“With Alteryx, I can now do analysis of first-year enrollment as well as our annual market analysis so quickly, I have the time to look for new data sources and explore other insights,” explains Reinoehl. By adding different data sources, the workflows he created to analyze student success are now easily adapted to answer other questions related to student performance, housing utilization, financial aid requirements, and, soon, alumni efforts.

“Obtaining quicker insights means we make better decisions to positively impact the future of the university and its students,” says Reinoehl. “From the point of first contact to greater alumni engagement, Alteryx and Tableau are behind some of the most important decisions we make every day that help us meet our goals and follow the university’s mission.”

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#### ABOUT ALTERYX

As a global leader in analytic process automation (APA), Alteryx unifies analytics, data science and business process automation in one, end-to-end platform to accelerate digital transformation. Organizations of all sizes, all over the world, rely on the Alteryx Analytic Process Automation Platform to deliver high-impact business outcomes and the rapid upskilling of their modern workforce.

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